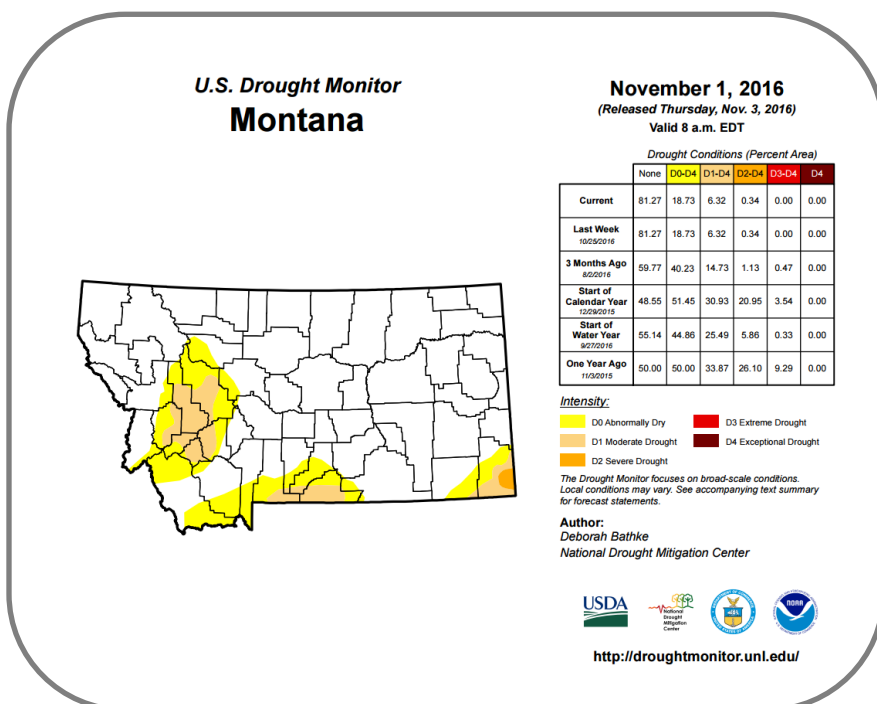


Montana — Current Drought Conditions



The U.S. Drought Monitor, is a weekly map of drought conditions produced jointly by the National Oceanic and Atmospheric Administration, the U.S. Department of Agriculture, and the National Drought Mitigation Center (NDMC) at the University of Nebraska-Lincoln. The U.S. Drought Monitor website is hosted and maintained by the NDMC. <http://droughtmonitor.unl.edu>

Highlights for the State

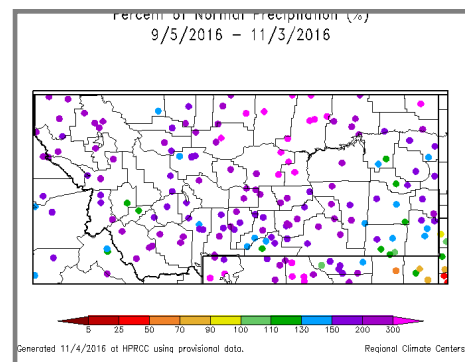
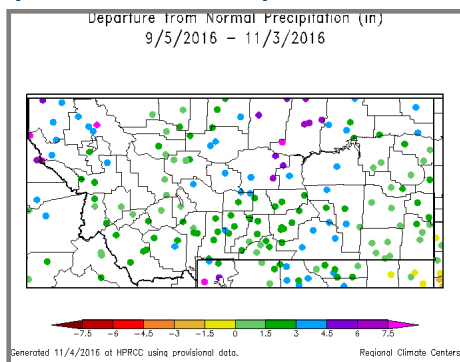
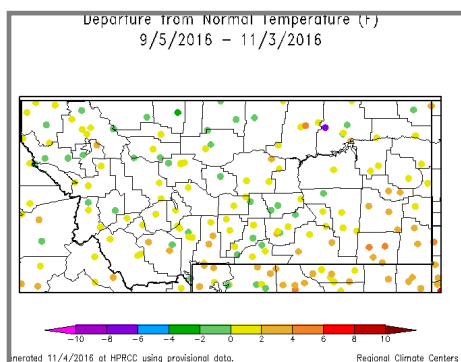
October was a wet month statewide, ranking in the top ten wettest Octobers for the last 122 years. Average temperatures for September and October saw a marked decline from record highs in August. October was the 62nd coolest October of record, while the statewide composite average for the last 12 months was 2.3°F above normal, with nine of the last 12 months having warmer than normal temperatures.

Overall, the month of October saw record setting precipitation across the state, with the exception of a small part of eastern Montana. Poorman Creek in the Cabinet Mountains shattered all records with 20.40 inches. 12.23" was reported at Hungry Horse Dam and 6.80" at Malta. Statewide, October averaged 2.97", or 1.84" above normal (the wettest of record). The extreme precipitation for this October exceeded the previously wettest October of 1975 (2.58").

Since early September, drought across the state lessened with some improvements along the Rocky Mountain Front and in the Southwest. The Southeast corner remains in Severe Drought (D2). While conditions have improved, the effects of the dry summer linger. The USDA added eleven counties in early October to those under a natural disaster designation due to recent drought. (Read more here: <http://www.fsa.usda.gov/news-room/emergency-designations/2016/ed-2016-1006-rel-0142>)

Montana — Climate Overview for Last 60 Days

Temperature and Precipitation Anomalies



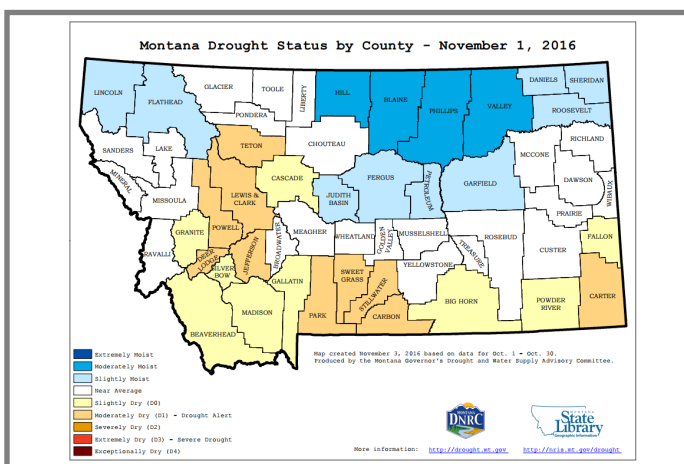
Temperatures over the 60-day period from September 9 to November 3 were generally near-normal in Montana with much of the state being within 1°F of the normal. The southeast (Powder River and Carter Counties) were a bit warmer, with some stations in those counties being 2° to 4° F above normal. In the northeast Philips County showed 4° to 6° F above normal temperatures, while in neighboring Valley County temperature were -6 to -8° F below normal.

Precipitation across the state was between 1.5 to 7.5 inches or more above normal. Many sites around the state broke records held since the early 1900s. From the northwest to the north to the central and eastern parts of the state areas reached above 300% of average for precipitation. Unfortunately this abundance of precipitation came too late for the 2016 season.

Montana — Drought Indicators

The Montana Drought Status by County is a monthly assessment tool used to monitor the moisture at a county level for the state. Temperature, precipitation, snowpack, reservoirs status, surface water gages, groundwater, crop reports, and field reports are compiled to create this map. To see a historical record go here: <https://mslservices.mt.gov/Geographic-Information/Maps/drought/>

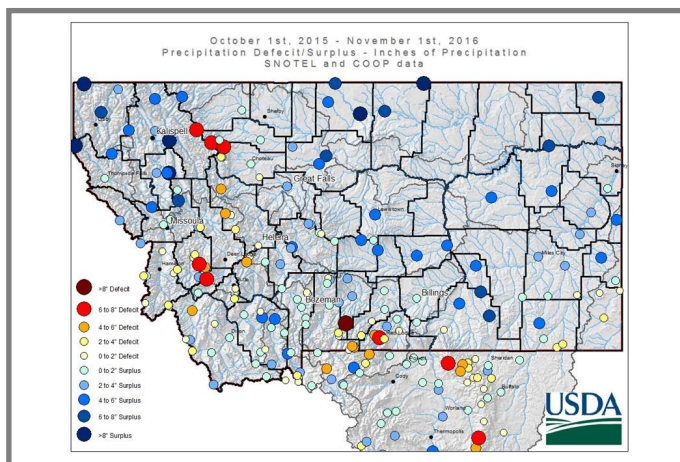
Do you have impacts to report? We need your on-the-ground reports and you can send them to ada.montague@mt.gov



Water Resources

Reservoirs statewide are a mix with most at or above average. The exceptions include Nevada Creek in the Upper Clark Fork (54% of average), Clark Canyon in the Jefferson (61% of average), Gibson (43% of average), Pishkun (26% of average), and Lower Two Medicine (28% of average) in the Smith-Judith-Musselshell. Streamflows throughout the state are mostly normal to above normal for this time of year with a few scattered exceptions in various locations.

The map below shows how much of a deficit or surplus areas are facing in terms of inches of precipitation in comparison to normal.



Montana — Short- and Long-term Outlooks

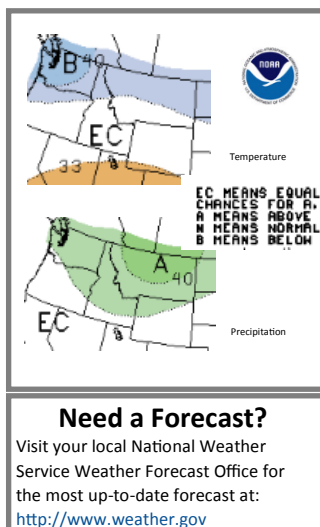
Weather and Climate Outlooks

For the next month the chances are equal for below or above-normal temperatures. The chances for precipitation are above-normal statewide.

Looking further out, the Nov-Jan period has good chances for below-normal temperature for all but the southern half of the state. While precipitation is more likely to be above normal in all of the state, the north, central, and northeast have a 40% chance of above-normal precipitation (see maps). For the Dec-Feb time span, below-normal temperatures continue to be favored for the north, and the entire state will continue to experience above-normal precipitation.

Although there is less certainty when looking at the first quarter of 2017, the pattern is expected to shift to equal chances for above, normal or below temperature and precipitation. The eastern half of Montana is more likely to experience above-normal precipitation.

Drought conditions are expected to improve, but should remain closely monitored in 2017 to ensure the lingering effects of the last two years do not persist.



Stay Tuned and In Touch

The next Montana Drought Impacts and Outlook Summary will be released around December 5th. If you need information in the meantime, please reach out to any of the partners listed to the right or contact Ada Montague directly at amontague@mt.gov.

Read the Montana Weather/Precipitation Summary for October 2016 at: www.wrh.noaa.gov/tfx/climate/droughtsum/pdfs/montanawx_2016_10.pdf

Summary of Conditions

Temperatures over the last 30 days have ranged from the mid 40s in the west to the high 60s in the west (°F). Only the most southern part of Gallatin County near West Yellowstone saw temperatures below 45 °F.

Precipitation for October was record breaking across the state.

Drought conditions have improved in all parts of the state with D2 remaining in Fallon County alone.

Partners

Montana State Climate Office

www.climate.umt.edu

National Weather Service

Great Falls Weather Forecast Office

www.wrh.noaa.gov/tfx/

Missoula Weather Forecast Office

www.wrh.noaa.gov/mso/

Billings Weather Forecast Office

www.wrh.noaa.gov/byz/

Natural Resource Conservation Service, Snow Survey and Water Supply Forecasting

www.nrcs.usda.gov/wps/portal/nrcs/main/mt/snow/

Montana Bureau of Mines and Geology

data.mbgm.mtech.edu/mapper/

Montana State Library

mslservices.mt.gov

United States Geologic Survey

<http://wy-mt.water.usgs.gov/>

Bureau of Reclamation, AGRImet

www.usbr.gov/pn/agrimet/h2ouse.html

National Agricultural Statistics Service

www.nass.usda.gov/Statistics_by_State/Montana/